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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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09/227,688 01/08/99 FENNER

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| EXAMINER |
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NGUYEN, H

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| ART UNIT | PAPER NUMBER |
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2738

DATE MAILED:

07/18/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/227,688

Applicant(s)

Fenner

Examiner

Hanh Nguyen

Group Art Unit  
2738



- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

- ☒ Claim(s) 19-40 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 19-40 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19-22, 24, 25, 27, 29, 30, 32, 33, 35, 36, 38, 39 are rejected under 35 USC 102(b) as being unpatentable over **Wang et al.** (US Pat. No. 5,365,520).

- Regarding claims 19-21, 24, 25 and 29, **Wang et al.** discloses, in Fig. 1, that a plurality of Central Switching Offices (CSO) 18 communicate with nodes 12 and mobile units 22 in a satellite-based communication network 10. Each of nodes 12 is intended to route encoded signals which are digital data packets (two or more networks interconnected by at least one message handling node for routing data packet and at least one mobile receiver). See col.2, lines 50-60 & col.3, line 52 to col.4, line 10. Refer to Fig.2, each of the digital data packets includes a routing code which identifies particular nodes 12. These particular nodes 12 direct packets to a desired mobile unit 22 without being aware of the precise nodes 12 used in delivering data packets or the changes in the identities of nodes 12 as the mobile unit 22 is moving from one network to another. Each node 12 may communicate with up to 4 central switching offices (CSO) 18 and over a

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thousand mobile units 22 at any given instant. In addition, the routing code is repetitively updated during the course of a call in accordance with network control messages received from nodes handling opposite ends of the calls (each of data packets includes a destination code for identifying the receiver independently of a physical media address, the destination code remains fixed as the mobile receiver changes the network). See col.5, lines 35-60 & col.4, lines 40-50 & col.7, lines 18-32. Refer to Fig.3, a routing look-up table 54 contains one data element for each possible routing code that may be received in a data packet at node 12. The data element associated with a data packet 's routing code identifies which cross link 16 (see Fig.2) to use in routing the data packet away from node 12 to its intended location (each message handling node routes packets to the mobile receiver based on the destination code, wherein the mobile receiver is located within the two or more interconnected networks). See col.6, line 65 to col.7, line 5.

- Regarding claims 32, 35, 38 and 39, these claims are substantially directed to the same subject matter in claim 1. In addition, **Wang et al.** discloses, in Fig.3, a structure of a switching node 12. The node 12 includes a transmitter 42 that couples to an output buffer 46 from which data is obtained for broadcasting away from node 12 ( A packet routing device). See col.6, lines 33-40. **Wang et al.** discloses a routing look-up table 54 (see Fig.3) that forwards packets with routing code to an intended location, and a table 52 that includes logical channel identification (LCID). The table 52 associates LCID values with output buffer addresses of transceiver 32 in a one to one correspondence. The addresses included in table 52 directly correspond to a channel used to transmit communications to mobile units 22 ( circuit for looking routing information and

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index in the table for forwarding the data packet). See col.6, lines 55-65 & Fig.9, col.13, lines 1-15

- Regarding claims 22, 30, 33 and 36, **Wang et al.** discloses, in Fig.9, that each CSO 18 preferably insures that it activates only one sequence values of logical ID 102 at a time, where the sequence value identifies a particular call or registered subscriber unit 22 that is associated with the CSO 18. Accordingly, the logical ID 102 uniquely identifies a termination unit to which a data packet 96 is being sent (the logic destination code is a globally unique identifier). See col.13, lines 1-15.

- Regarding claim 27, this claim is directed to the same subject matter in claim 19. In addition, **Wang et al.** discloses, in Fig.3, a routing look-up table 54 that contains routing code in a packet which identifies which cross link 16 (Fig.2) to use in routing the data packet away from node 12 to its intended location (associate the unique address with a physical media path and forward the data packet according to the media path ). See col.6, line 65 to col.7, line 5.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 23, 26, 28, 31, 34, 37 and 40 are rejected under 35 USC 103(a) as being unpatentable over **Wang et al.** (US Pat. No. 5,365,520).

- Regarding claims 23, 26, 28, 31, 34 and 37, **Wang et al.** does not disclose the logical destination code is an IP address. However, it is obvious to assign an IP address as a destination code to a user such as this user is using a laptop and moving from one location to another. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the logical destination code as an IP address in **Wang et al.** to arrive at the claimed invention in order to identify the moving mobile unit.

- Regarding claim 40, **Wang et al.** does not disclose a device for arithmetically compressing the entire logical address. However, it is obvious to use the arithmetically coding to compress the logical address. This method of coding was invented by Witten, Neal and Clearly, Communications of the ACM, June, 1987. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the method of arithmetically coding to compress logical address in **Wang et al.** to arrive at the claimed invention in order to identify desired subscriber units.

### *Conclusion*

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Fenner (US Pat. No. 5,095,480) discloses a Message Routing System for Shared Communication Media Networks.

- Fenner (US Pat. No. 5,842,224) discloses a Method and Apparatus for Source Filtering Data Packets Between Networks of Differing Media.

- Fenner (US Pat. No. 5,860,136) discloses a Method and Apparatus for Use of Associated Memory with Large Key Spaces.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is (703) 306-5445. The examiner can normally be reached on Monday-Friday from 8:00AM to 5:30 PM.

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (703) 305-4744. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

**Any response to this action should be mailed to :**

Commissioner of Patents and Trademarks

Washington D.C. 20231

**or faxed to :** (703) 308-6743 or (703) 305-3988

**For informal or draft communications, please label "PROPOSED" or "DRAFT"**

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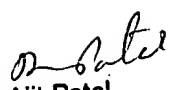
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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Dr.

Arlington VA, Sixth floor (Receptionist)

Hanh Nguyen

  
July 12, 2000

  
Ajit Patel  
Primary Examiner